

This listing of claims replaces all prior versions, and listings, of claims in this application.

Listing of Claims:

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1. (Currently Amended) An inverter, comprising:

a transformer;

a first switch transistor having a first current-conducting terminal and a second current-conducting terminal with ~~one of the source/drain thereof~~ the first current-conducting terminal thereof being electrically coupled to the primary side of said transformer;

a second switch transistor having a first current-conducting terminal and a second current-conducting terminal with ~~one of the source/drain thereof~~ the first current-conducting terminal thereof being electrically coupled to the primary side of said transformer;

a reset capacitor electrically coupled between the ~~other of the source/drain~~ second current-conducting terminal of said first switch transistor and the ~~other of the source/drain~~ second current-conducting terminal of said second switch transistor; and

a control circuit for generating two switch control signals in response to a voltage feedback signal representing the current value at the secondary side of said transformer and respectively outputting to the gate of said first switch transistor and the gate of said second switch transistor to thereby cause said first switch transistor and said second switch transistor not to conduct current at the same time; and

a decoupling capacitor electrically coupled to the secondary side of said transformer.

2. (Currently Amended) The inverter of claim 1, further comprising:

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a first snubber capacitor electrically coupled between the first current-conducting terminal and the second current-conducting terminal ~~source and the drain~~ of said first switch transistor; and

a second snubber capacitor electrically coupled between the first current-conducting terminal and the second current-conducting terminal ~~source and the drain~~ of said second switch transistor.

3. (Canceled)

4. (Original) The inverter of claim 1, wherein said control circuit comprises a driving circuit which utilizes the voltage across said reset capacitor as driving power for generating said two switch control signals.

5. (Original) The inverter of claim 1, wherein said control circuit comprises:
an error amplifier, for sensing said voltage feedback signal representing the current value at the secondary side of said transformer and a reference voltage to perform an error amplification, and

a pair of comparators for generating said two switch control signals according to the comparison result of the output of said error amplifier and a reference triangular wave.

6. (Original) The inverter for claim 5, wherein said control circuit further comprises a driving circuit for enhancing the driving power of said two switch control signals.

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7. (Original) The inverter of claim 5, wherein said control circuit further controls the current value at the secondary side of said transformer according to a burst mode control signal received by said error amplifier.

8. (Original) The inverter of claim 5, wherein said pair of comparators comprise:
a voltage-driving resistor electrically coupled to the output terminal of said error amplifier for providing two outputs with different voltages;
a first comparator electrically coupled to one of the two outputs of said voltage-driving resistor for generating one of said two switch control signals; and
a second comparator electrically coupled to the other of the two outputs of said voltage-driving resistor for generating the other of said two switch control signals.

9. (Original) The inverter of claim 1, wherein said control circuit further controls the current value at the secondary side of said transformer according to a burst mode control signal.

10. (Original) The inverter of claim 1, wherein said control circuit further renders both said first and said second switch transistors non-conducting during the interval between the conducting of said first switch transistor and the conducting of said second switch transistor.

11. (Currently Amended) A lamp ignition system, comprising:
a discharge lamp; and
an inverter;
wherein said inverter comprises ~~comprising~~:

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a transformer with the secondary side thereof electrically coupled to said discharge lamp;

a first switch transistor having a first current-conducting terminal and a second current-conducting terminal with ~~one of the source/drain thereof~~ the first current-conducting terminal thereof being electrically coupled to the primary side of said transformer;

a second switch transistor having a first current-conducting terminal and a second current-conducting terminal with ~~one of the source/drain thereof~~ the first current-conducting terminal thereof being electrically coupled to the primary side of said transformer;

a reset capacitor electrically coupled between the ~~other of the source/drain~~ second current-conducting terminal of said first switch transistor and the ~~other of the source/drain~~ second current-conducting terminal of said second switch transistor; and

a control circuit for generating two switch control signals in response to a voltage feedback signal representing the current value at the secondary side of said transformer and respectively outputting to the gate of said first switch transistor and the gate of said second switch transistor to thereby cause said first switch transistor and said second switch transistor not to conduct current at the same time.

12. (Currently Amended) The lamp ignition system of claim 11, wherein said inverter further comprises:

a first snubber capacitor electrically coupled between the first current-conducting terminal and the second current-conducting terminal ~~source and the drain~~ of said first switch transistor; and

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a second snubber capacitor electrically coupled between the first current-conducting terminal and the second current-conducting terminal ~~source and the drain~~ of said second switch transistor.

13. (Original) The lamp ignition system of claim 11, wherein said inverter a decoupling capacitor electrically coupled between the secondary side of said transformer and said discharge lamp.

14. (Original) The lamp ignition system of claim 11, wherein said control circuit comprises a driving circuit which utilizes the voltage across said reset capacitor as driving power for generating said two switch control signals.

15. (Original) The lamp ignition system of claim 11, wherein said control circuit comprises:

an error amplifier, for sensing said voltage feedback signal representing the current value at the secondary side of said transformer and a reference voltage to perform an error amplification, and

a pair of comparators for generating said two switch control signals according to the comparison result of the output of said error amplifier and a reference triangular wave.

16. (Original) The lamp ignition system of claim 15, wherein said control circuit further comprises a driving circuit for enhancing the driving power of said two switch control signals.

AI 17. (Original) The lamp ignition system of claim 15, wherein said control circuit further controls the current value at the secondary side of said transformer according to a burst mode control signal received by said error amplifier.

18. (Original) The lamp ignition system of claim 11, wherein said pair of comparators comprise:

a voltage-driving resistor electrically coupled to the output terminal of said error amplifier for providing two outputs with different voltages;

a first comparator electrically coupled to one of the two outputs of said voltage-driving resistor for generating one of said two switch control signals; and

a second comparator electrically coupled to the other of the two outputs of said voltage-driving resistor for generating the other of said two switch control signals.

19. (Amended) An inverter, comprising:

a transformer;

a first switch transistor having a first current-conducting terminal and a second current-conducting terminal with ~~one of the source/drain thereof~~ the first current-conducting terminal thereof being electrically coupled to the primary side of said transformer;

a second switch transistor having a first current-conducting terminal and a second current-conducting terminal with ~~one of the source/drain thereof~~ the first current-conducting terminal thereof being electrically coupled to the primary side of said transformer;

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a reset capacitor electrically coupled between the ~~other of the source/drain~~ second current-conducting terminal of said first switch transistor and the ~~other of the source/drain~~ second current-conducting terminal of said second switch transistor; and

a control circuit for controlling said first switch transistor and said second switch transistor not to conduct current at the same time, wherein said control circuit comprises a driving circuit which utilizes the voltage across said reset capacitor as driving power for generating two switch control signals respectively outputted to said first switch transistor and said second switch transistor so as to reduce the conducting resistance thereof.

20. (Cancelled)

21. (Original) The inverter of claim 19, wherein said control circuit further renders both said first and said second switch transistors non-conducting during the interval between the conducting of said first switch transistor so as to reduce the conducting resistance thereof.

22. (Currently Amended) The inverter of claim 19, further comprising:

a first snubber capacitor electrically coupled between the first current-conducting terminal and the second current-conducting terminal ~~source and the drain~~ of said first switch transistor; and

a second snubber capacitor electrically coupled between the first current-conducting terminal and the second current-conducting terminal ~~source and the drain~~ of said second switch transistor.